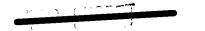
many proposed

BACKUP #3

20 February 1960

## BASIS FOR ICBM PRODUCTION ESTIMATE

- A. We estimate IOC with about 10 series produced ICBMs by beginning of 1960.
  - 1. Timing is primarily based on number and character of missile test firings. About 20 successful firings a reasonable number for achievement of IOC.
- B. This IOC implies first delivery of series produced missiles for operational inventory beginning in the latter part of 1959.
  - 1. Belief that series production under way is based on time elapsed since start of test-firings, Khrushchev's statements, and limited evidence on production facilities.
  - 2. Recent rate of test-firings also suggests that series production is under way.
- C. Have limited evidence that final assembly of ICBMs may be taking place at one and possibly two plants in the USSR.



- 1. Evidence insufficient for firm conclusions as to floor space, number of shifts involved, or present production rates.
- 2. A third plant, connected with a research and development facility, may have produced ICBM prototypes.
- 3. These plants may also be engaged in work on other types of ballistic missiles.
- 4. Still another plant is probably engaged in production of medium range ballistic missiles.
- 5. In addition to final assembly plants a large number of other plants and facilities are needed to produce missile components, ground guidance equipment, and launching and maintenance equipment.
- D. To achieve the lower limit of our range (i. e., production of about 225 ICBMs for operational purposes by mid-1961, sufficient to provide 140 on launcher), production would need to build up from a few test missiles per month to a peak of about 15 per month in the latter part of 1960.
  - This would require a very large single final
    assembly plant operating at full capacity (i. e., about
    million square feet and round the clock operation).

- 2. A factor in the Soviet production program is the size of their ICBM, which we believe is very large (about 500,000 lbs; thrust 750,000 lbs.)
- 3. Same production might be achieved with two smaller plants.
- E. To achieve the upper limit of our range, (i.e., production of about 350 by mid-1961, sufficient to provide about 200 on launcher) peak rate of production for operational purposes would have to build up to about 20-25 per month at the end of 1960 or early 1961.
  - This would probably require two plants, with
    2nd plant following first by 6 months or more.
- F. Production of missiles not sole factor in building up an operational ICBM capability. It probably represents some 15 to 25 percent of the total effort involved.